

CHRONOLOGY

The Glenburn Store Building consists of three rooms and a hallway on the first floor with each space appearing to represent a separate building phase. Unfortunately there has been a great deal of renovation over the years the building was in private ownership, which has made it difficult to clearly determine the construction chronology. Of particular note is the fact that Rooms 101 and 102, and parts of Room 103, were sandblasted at some point which has eliminated evidence of these changes and has negatively impacted the historic integrity of the building.

We believe that Room 102 represents the earliest phase of construction with the hall (Room 101) originally being a porch that was later enclosed. There are certain architectural details remaining that are consistent with this assessment, including: 1 ½ story construction, the hand-hewn timber frame, log first floor joists, horizontal board wainscoting, built in cupboard by fireplace, interior door casing and board and batten door, six-over-six windows and certain features of the fireplace. This section is constructed with a very low stone foundation with the floor joists essentially sitting on grade. It was constructed with a wood sill plate (now mostly gone) with timber posts extending from the plate to the rafter plate with the second floor joists framed into these posts. This is framed in the Dutch tradition, however the framing members are lighter and more closely spaced than is typical. The spacing of the frame allows for windows, but is too narrow for a door, which is why the door is found on the gable end, now within the hall (Room 101). The current door at the west side of the room is not original and necessitated cutting out a principal post. There is evidence of at least one likely original window on the west wall. One question revolves around the fact that the rafter plate is continuous over both spaces – Room 101 and 102. Often this can be found when a building is raised and expanded. In this case we know that the building height was not increased, as the posts are continuous from the sill plate to rafter plate. It is possible that an entirely new rafter plate was installed with the extension of the hall, but it would have been more typical to just extend the plate.

The south wall of Room 101 is finished with clapboards and appears to have been the original exterior wall of this section of the building. The clapboards are installed with cut nails that exhibit little deterioration indicating that this area (the hall) might have been enclosed at an early date or might have always been under a porch. There is a distinct change in the east and west wall framing between Room 101 and 102, which could reflect the addition of Room 102, or could simply be a result of the addition of doors at the east and west ends of the hall. If this space were entirely added later, as opposed to enclosing a porch, it is difficult to explain the continuous rafter plate, which spans entirely across Rooms 101 and 102. Additional evidence that Room 101 was originally an exterior space is the abandoned butt hinge mortises at the exterior of the door on this wall indicating a screen or storm door. Given this evidence, we believe the early configuration of Rooms 101/102 was that the second floor extended over Room 101, which was originally an open porch that was later enclosed.

It appears that the next phase of construction, following the enclosure of Room 101, was the construction of Room 104. This is the only section of the building that is built over a basement, access to which is provide through a floor hatch immediately inside Door 102. The foundation of this section is stone with an area of concrete infill about two feet deep immediately below Door 102. This area of infill might be an indication of a low door opening cut through the foundation indicating a root cellar or ice house. The framing in this section is a combination of 2x framing

on top of a severely deteriorated timber sill. The west side of the west wall of this section – within Rooms 103 and 202 – is finished with clapboards, which have been sandblasted within Room

103. Painted clapboards and an attic louver on this wall within Room 202 indicate that this had been an exterior wall.

The above information points to the section of the building containing Rooms 103 and 202 as the last period of construction filling in the ell between the two earlier buildings. This section is constructed over a crawl space. The foundation is concrete with the exception of the very small area at the southeast inside corner connecting the foundations of the two earlier sections (visible in Photo 19) See also 1911 Map (Photo 21).

Attached is an initial findings letter from Hunter Research as well as the dendrochronology report from Richard Veit. While these reports provide some insight into the possible construction dates and chronology of the building, they do not offer conclusive evidence of the date of construction. The dendrochronology report offers dates of 1782 and 1845 as two possible dates for one of the samples, with the 1845 date having the strongest correlation to the database used to evaluate these samples. When looking at this date in the context of the history of the property, one finds that Simon H. Van Ness moved from the property to Newark between 1840 and 1845, which is not strong evidence that he was expanding the property to include a servants building or summer kitchen in 1845. Additionally, with numerous mills in the area, including sawmills, it seems surprising that hewn logs and timbers would be used in the construction over sawn members. The architectural character of this section indicates an earlier date, but the archaeological survey does not indicate a convincing correlation with an eighteenth century date and the history of the property finds that the property, when left to Simon H. by his father in 1816, did not include buildings. One possible explanation for this is that the building was moved to this location in the nineteenth century. Historically, a good date for the property might be late in the first quarter of the nineteenth century, after Simon H. acquires the property. At this point though, there is not corroborating physical evidence to support this date.

CONDITIONS

The condition of the Glenburn Store Building is generally poor. This is due primarily to deferred maintenance and poor drainage over the years, which has resulted in severe roof failure and widespread failure of major framing members and finishes. Additionally, while under private ownership over the course of many years, the treatment of this auxiliary building can be described as careless at best. Alterations were undertaken without much attention to detail. Much of the existing twentieth century millwork was installed very carelessly and treatments, such as sandblasting interior millwork, resulted in a loss of integrity and the destruction of evidence that would otherwise help to illustrate the history and evolution of the building.

CONCLUSION

While we have a fairly clear understanding of the construction phases of the Store Building, we don't have a good understanding of when the first section of the building was constructed. Regardless of the construction date(s), with a few exceptions, our approach is to essentially retain the existing form and fabric to the greatest extent possible and rehabilitate the building for a new use. The building is important as a possible early outbuilding on the site and a link to the early

agricultural development of the site; and then later as the store. Because the period of significance for the property extends to 1949, the store is integral to character and significance and all sections of the building will be retained. Whether the building was first constructed in

1782 or 1845 - or some period in between - will not affect the proposed rehabilitation. We expect there will be opportunities to uncover additional evidence of the building's evolution during selective demolition and construction. We will monitor this process closely and provide updated information as it is uncovered.



Photo 1: View of the east elevation of the store building. (10/6/09)



Photo 2: North elevation. (6/9/09)



Photo 3: South elevation. (10/6/09)



Photo 4: West elevation prior to installation of roof tarps. (7/3/07)



Photo 5: Room 101 (Hall) facing west. The wall at left appears to have been the original exterior wall of the first section of the building, however the rafter plate is continuous across both of these sections of the building. The stair does not appear to be original to this section. (1/17/13)



Photo 6: Room 101 (Hall) facing east. This window had been a door. The walls, ceiling and trim in this space have been sandblasted. (1/17/13)



Photo 7: Room 102 facing south showing fireplace and original millwork, which has all been sand blasted. Room 102 appears to be the earliest section of the building. (10/5/12)



Photo 8: Room 102 facing north. The door casing and wainscoting appears to be original, but unfortunately have been sandblasted along with the ceiling. (11/27/12)



Photo 9: Condition of joists and wall framing at west side of Room 102. The condition of the framing is such that complete reconstruction of this wall is required. The cut off stud at center indicates the location of an earlier window. (11/27/12)



Photo 10: Room 103 facing west. Room (10/5/12)



Photo 11: Room 103 facing east. This wall appears to have been the exterior wall of a building the size of Room 104 . In this room the south and east walls – previously painted exterior clapboard walls – have been sandblasted. (10/5/12)



Photo 12: Room 104 facing east. Just visible within the open floor hatch is concrete infill in the foundation which might indicate the opening to an earlier ice house or root cellar over which this section was constructed. (10/5/12)



Photo 13: Room 104 facing west. (10/5/12)



Photo 14: Room 201 facing north. (1/17/13)



Photo 15: Room 201 facing south. Note temporary sheathing at dormer roof. (1/17/13)



Photo 16: Condition of floor and joists inside large dormer casement. (11/27/12)



Photo 17: Debris at Room 202. (1/17/13)



Photo 18: View of the west elevation showing the dormer and large casement window. The outline of a greenhouse and the corresponding concrete pad is also visible. (1/17/13)



Photo 19: View of excavation unit along east wall of the south section. The original north exterior wall of the first build aligns with the left side of the window. Arrow 1 shows a possible joint in the foundation which may correspond the edge of a porch along the north elevation although the stone immediately to the right could have been included. The porch also could have extended to Arrow 3. To the right of Arrow 3 is the very hastily constructed foundation connecting the two earlier sections of the building. Please refer to the letter from Hunter Research dated 1/31/13 for further discussion. (12/18/12)



Photo 20: The rafter plate at this section is continuous to the red arrow which corresponds to Arrow 3 in Photo 19. (7/3/07)

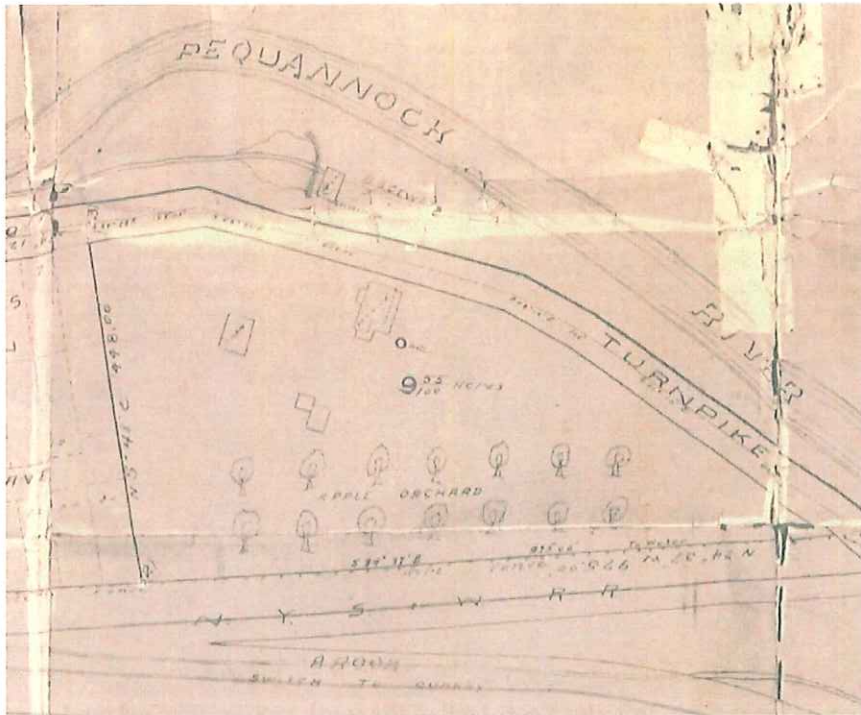
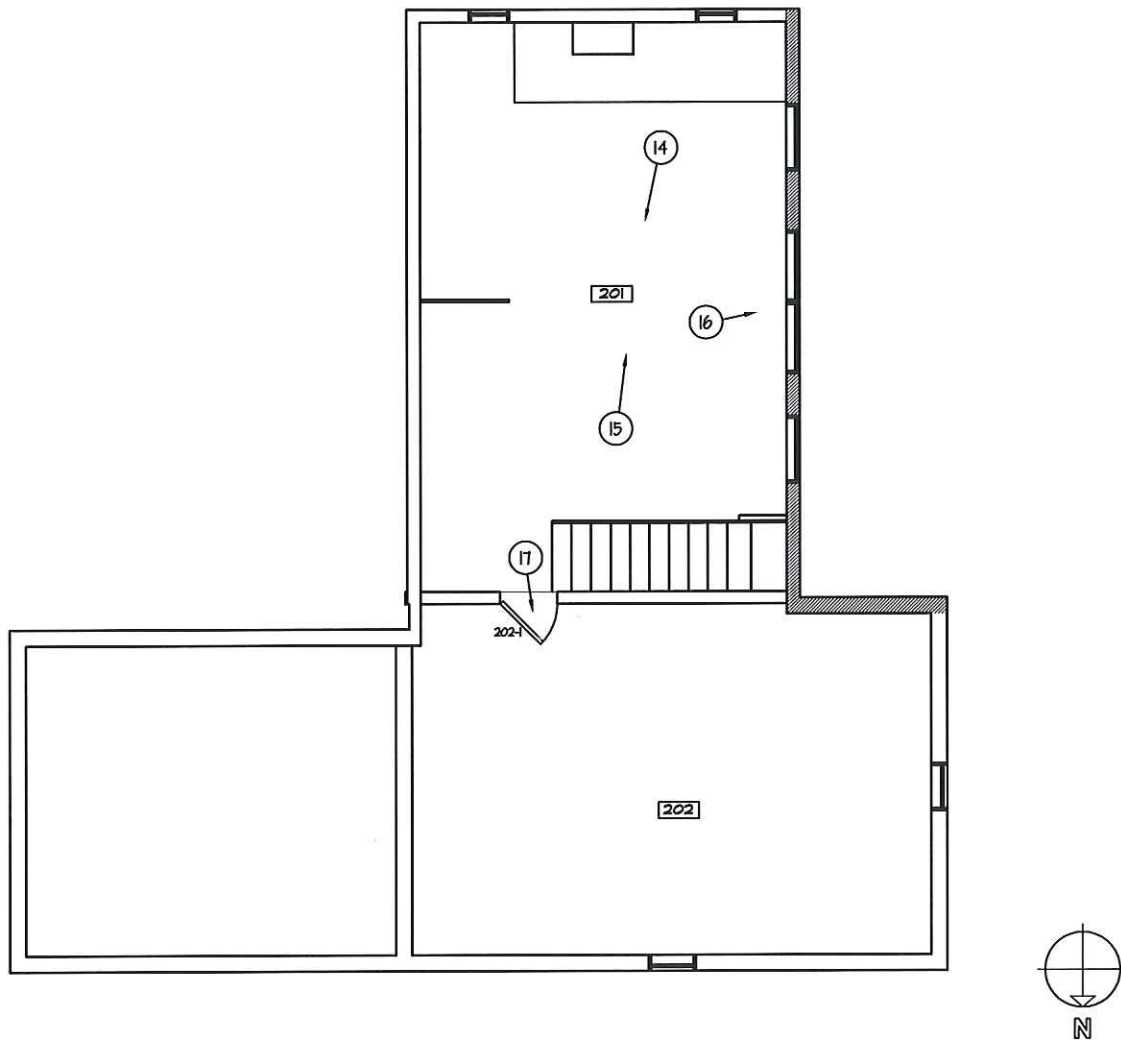
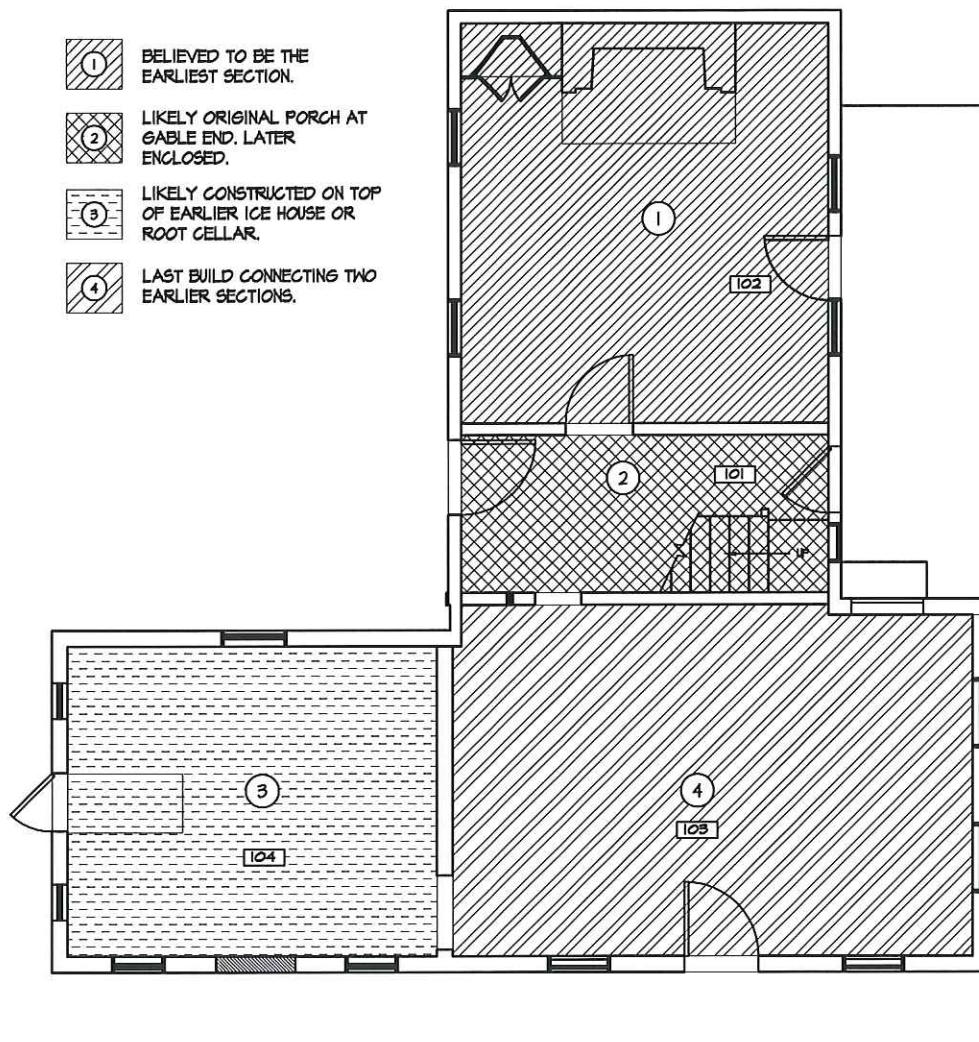


Photo 21: This 1911 Map shows the store building prior to construction of Room 103, which filled in the ell created by the two earlier sections.. (7/3/07)





SECOND FLOOR PHOTO KEY



CONSTRUCTION PHASE PLAN

**DENDROCHRONOLOGICAL STUDY OF THE
GLENBURN STORE
Riverdale, Morris County, NJ**



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HMR Architects
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January 24, 2013

Introduction

At the request of HMR Architects a dendrochronological study was performed of the Glenburn Store in Riverdale, Morris County, New Jersey. Richard Veit, Ph.D., performed the fieldwork in December of 2012. A total of six cores samples were taken from the building, only one of which could be dated.

Alice Gerard analyzed the cores at the Tree-Ring Laboratory of the Lamont-Doherty Earth Observatory, a division of Columbia University. The cores from the Glenburn Store were compared with master chronologies made from the cores in the collections of the Tree-Ring Laboratory. The resulting analysis revealed that the only datable timber employed in the building was a sill plate that may date from either 1782 or 1845.

Methods

Tree-ring dating and cross dating are essentially pattern matching of the variations in wide and narrow annual rings, wood density, or other ring characteristics resulting from variations in regional climate. The sampling was carried out using a one-inch diameter hollow-point drill bit mounted in a high-speed electric drill. All of the cores were taken from timbers that appear to be original components of the structure and had retained either their original bark or showed a waney edge, indicating where bark once had been. The master or best dated chronologies for the northeastern United States are based on oak. In some cases, such as where bark is missing, it is hard to determine the species of the tree before drilling. In sampling the Glenburn Store one of the six samples was determined in the laboratory to be from oak, five were softwood, two of which are certainly poplar. The locations of the cores are noted below in the core catalog. In order to be dated cores must retain at least seventy-five rings.

Once they arrive at the lab, the cores are aligned, glued to a frame, and sanded until the ring patterns show clearly. Measurements of ring widths are then recorded using a staging microscope and computer. These measurements are compared with master chronologies made from dated beams in the same geographical area. This is done with specialized computer software. All of the cores are kept on file at the Tree-Ring Laboratory.

GLENBURN STORE CORE CATALOG

The six samples and their locations are described and illustrated in this section of the report.

Sample #1, This sample was taken from a sill plate in the purportedly older section of the building on the west side. It was oak and had 137 rings. The edge of the timber was a bit battered. It may once have been a waney edge. The timber dated against the Northern New Jersey Master to give a date of 1845 for the final ring, but not very well. It dated against the Philly Master and the Monmouth Master to give a date of 1782 for the last ring, but even more weakly. Architectural details may help resolve the date of this timber (Figure 1).



Figure 1. The small silver rectangle is the tree-ring dating starting plate. It indicates the location of the first sample.

Sample #2. This sample was taken from the third floor joist south of door in the purportedly older section of the building. It had a waney edge but was not oak and had only 38 rings. It could not be dated (Figure 2).



Figure 2. The sample was taken from the center of this beam on the waney edge.

Sample #3. This sample was taken from the fourth joist south of door in what is purported to be the oldest part of the building. It had a waney edge and was not oak. The sample had 46 rings. It could not be dated.



Figure 3. This photo shows the sample location.

Sample #4. This sample was taken from a fireplace support on the east side of the fireplace. It had a waney edge. The timber was poplar. It had a waney edge but yielded only 61 rings (Figure 4).

Sample #5. This sample was taken from a fireplace support on the east side of the fireplace. It had a waney edge. The timber was poplar and the rings were indistinct. It could not be dated (see Figure 4).



Figure 4: Sample four is located in the center of the photograph and Sample Five is located to the right.

Sample #6. This sample was taken from the second floor rafter plate in the northeast corner of the building. The timber was not identified. It had 33 rings and could not be dated.



Figure 5: View showing sample six's location.

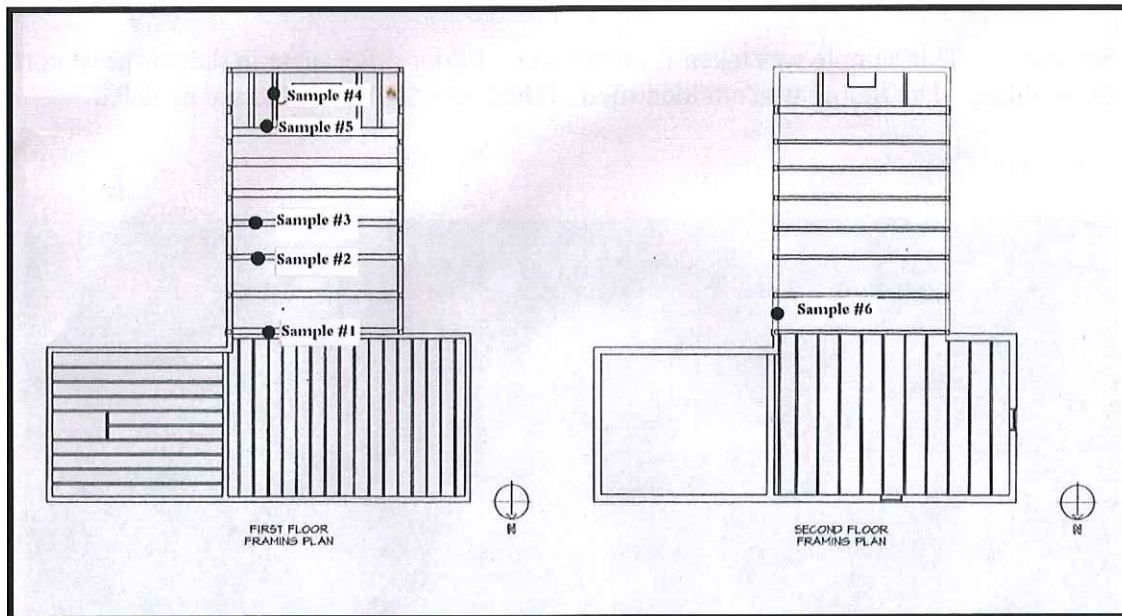


Figure 6: Plan view of the first and second floors of the Glenburn store showing the sample locations.

Interpretations and Conclusions

In summary, one of the six samples from the Glenburn Store was cross-dated against established master tree-ring chronologies from the Northeast. Generally speaking the floor joists were in very poor condition and were too decayed to sample. The few that were intact yielded short samples or proved to be cut from some wood other than oak. These master chronologies employed included the Northern New Jersey Master, which is made up of cores dated from 1491 to 2001 from New Jersey, the Philadelphia Master, and the Hutchison Forest Master. The Philadelphia Master is based on dated cores from Philadelphia and the Hutchison Forest Master is based on an old growth forest in Somerset County, New Jersey. Because of regional variations in tree-ring widths, samples may also be dated comparison with each other if there isn't a clear correlation with one of the master tree-ring chronologies.

Only Sample #1 was oak and yielded a long enough sample to be processed. This sample was taken from a sill plate in the purportedly older section of the building on the west side. It was oak and had 137 rings. The edge of the timber was a bit battered. It may once have been a waney edge. The timber dated against the Northern New Jersey Master to give a date of 1845 for the final ring, but not very well. It dated against the Philly Master and the Monmouth Master to give a date of 1782 for the last ring, but even more weakly. Architectural evidence, e.g., nail types, moldings, etc., may help determine which of these dates is more likely.

HUNTER RESEARCH

Richard W. Hunter
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January 31, 2013

Kurt Leasure
HMR Architects
821 Alexander Road, Suite 115
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Re: Summary of Results
Archaeological Investigation
Frame Outbuilding at Glenburn
Riverdale, Morris County, New Jersey

Kurt:

Please accept the following letter as a summary of the results of our archaeological investigation of the Frame Outbuilding at Glenburn. Archaeological investigations at the "Country Store" comprised the excavation of 14 shovel tests around the exterior of the building, 4 shovel tests under the floor the southern wing, and a 10.5-by-2.5-foot rectangle in the foundation corner of the southern and eastern wings. Shovel testing around the exterior of the building did identify a possible concentration of domestic refuse, although somewhat diffuse, to the southeast of the building. Shovel Tests 4, 5, 6 and 7 each yielded a significant number of artifacts (152 from four shovel tests) from both the topsoil and the underlying second contexts.

Artifacts recovered include redwares, yellowwares, brown- and gray-bodied stonewares, bottle glass fragments, white clay pipe bowl fragment, mammal bones, and clam and oyster shell. These types of items are commonly dated to the second quarter of the 19th century and later. Additionally, a 90% complete argillite biface, dating to the Middle Woodland period (A.D. 1 to A.D. 700) or before, was recovered from Shovel Test 5, hinting at a much longer period of human occupation at this site.

The shovel tests to the west and north of the building exhibited evidence of modern disturbance, some with deep single contexts of soil extending to glacial cobbles. Artifacts from these tests included a large number of corroded nails and glass fragments. A single sherd of pearlware, likely produced between 1780 and 1830, was recovered from Shovel Test 8, but this was in a shovel test that had only a single context and was considered to be heavily disturbed.

Within the building, shovel tests encountered soils containing modern artifacts resting on the underlying glacial cobbles. This suggests a high degree of disturbance during the 20th-century renovations of the building. Artifacts from these tests yielded mostly building materials along with some bones and late 19th-century ceramics (ironstones and polychrome porcelains). Little information was gained regarding the building's chronology from these tests, although the presence of 16 bone fragments strengthens the suggestion that cooking may have taken place in the building, whether as a summer kitchen or dwelling is unclear from shovel testing.

The large rectangular excavation unit was placed under the door sill in the eastern wall of the southern wing in order to examine the development of the basement foundation. The foundation was built on top of the glacial cobbles underlying the site, and had some discernible "seams" suggesting construction phasing. The first seam, a roughly vertical line that appears to delineate a well-made trimmed stone foundation (to the south) from a more informal boulder foundation (to the north), lies under the east-west joist lying midway between the sided exterior wall forming the south wall of the stairway hall within the southern wing, and the southern wall of the main, more-modern block (forming the north wall of the stairway hall).

Lee to Leasure, January 31, 2012, page 2 of 2

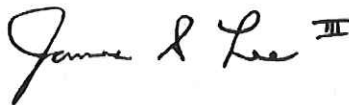
This evidence may indicate the former presence of a narrow porch on the northern facade of the southern wing, prior to the joining of the buildings. This would explain the exterior cladding within the stairway hall. This also suggests that this southern building stood by itself with its main door facing the barn to the north. This could indicate its use as a servants quarters. If it were a summer kitchen the door would more likely face the main house. Not definitive dating evidence for this building was encountered during the investigation.

The second seam is located at the corner of the southern wing and eastern wing. The foundation masonry changes from informal boulder construction to a very hastily built cobble foundation under the eastern wing. These boulder and cobble foundations are interpreted as an effort by the builder, with little masonry experience, to extend and connect the foundations of formerly separate buildings, the southern wing and the eastern wing, into a new main block. The existing eastern wing building appears to have been built on an earlier foundation, judging by the repairs along the top of the foundation visible from the interior and by the possible closed-up bulkhead entrance in the eastern foundation wall. This foundation may have been originally built as a large icehouse or root cellar before being raised and connected with the main block and southern addition. While archaeology may have been able to discern these phases, it has not been able to date them. Architectural clues are more likely to discern the date of these modifications than the archaeology.

Artifacts recovered from the excavation unit reflect the contents of the adjacent shovel tests with a significant number of ceramic sherds, bottle glass, and mammal bones. There were a larger number of nails in the unit compared to the shovel tests. Also, two sherds of pearlware (produced between 1780 and 1830) and a single sherd of creamware (1762 and 1820) were recovered. While these ceramics start being produced in the late 18th century they continue in use well into the 19th century and, especially in this limited a quantity, cannot be taken as indicating an 18th-century occupation.

I hope this summary aids in your assessment of the building. It will be developed more thoroughly in the full report. Please do not hesitate to contact me with any comments or questions.

Yours sincerely,

A handwritten signature in cursive script that reads "James L. Lee" followed by a stylized "III" as a superscript.

James Lee, M.A., RPA
Principal Investigator

copy: Ian Burrow, HRI
file (12048)



